



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/541,977

07/11/2005

Petrus Helena Vromans

NL 030031

8093

24737

7590

02/23/2009

PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

JOLLEY, KIRSTEN

ART UNIT

PAPER NUMBER

1792

MAIL DATE

DELIVERY MODE

02/23/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/541,977	Applicant(s) VROMANS ET AL.	
	Examiner Kirsten C. Jolley	Art Unit 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 9-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/22/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restriction

1. Applicant's election of group I, claims 1-8, in the reply filed on January 7, 2009 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Specification

2. The disclosure is objected to because of the following informalities: It is noted that the word "peripheral" is used throughout the specification, however this is not a word according to the dictionary. The Examiner suggests replacing "peripheral" with --peripheral--.

Appropriate correction is required.

Claim Objections

3. Claims 1-2 and 6-8 are objected to because of the following informalities:

In claims 1 and 2, it appears that the symbol "·" in lines 12 and 16-17 of claim 1, and in line 4 of claim 2, should be --δ--, according to the specification and previous claims. For purposes of examination, claims 1 and 2 have been interpreted as requiring such.

In claims 6 and 7, it appears that the word "peripheral" should be --peripheral-- since "peripheral" is not a word.

Art Unit: 1792

In claim 8, line 2, it appears that the symbol “·m” is a typographical error and should be -
-µm-- according to the specification. For purposes of examination, claim 8 had been interpreted
as requiring µm.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing
to particularly point out and distinctly claim the subject matter which applicant regards as the
invention.

In claim 8, the limitation “a few µm” renders the claim vague and indefinite because the
metes and bounds of the phrase “a few” is unclear and indefinite.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the
basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 1792

7. Claims 1 and 3-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Ou-Yang (US 2004/0137751).

The Examiner notes that the filing date of Ou-Yang (December 2, 2003) is later than Applicant's PCT filing date (November 4, 2003) and foreign priority date (January 14, 2003). However, the filing date of Ou-Yang's Provisional application No. 60/431,346 of December 2, 2002 precedes both of Applicant's PCT filing date and foreign priority date. The Examiner has reviewed the Provisional application No. 60/431,346, and notes that the Provisional application provides support for its invention and the limitations relied upon for rejection of the claims as set forth below.

Ou-Yang discloses a method of manufacturing an optical data storage medium comprising: applying a liquid onto a rotating substrate and rotating the substrate further to spread out the liquid between an inner radius r_i and an outer radius r_o (paragraph [0028]) and solidifying the liquid by means of exposure to UV radiation. Ou-Yang teaches that after applying the liquid onto the rotating substrate, the liquid layer is heated using a temperature gradient where the temperature at the outer radius has a temperature higher than at the inner radius (paragraphs [0014-0015] and [0033-0034]).

Ou-Yang discloses use of a substrate. Ou-Yang lacks a teaching of a plurality of layers deposited on the substrate and that the liquid layer is one of a transparent spacer layer or transparent cover layer. The Examiner takes Official notice that it is well known that optical disks such as DVDs, CDs, and Blu-Rays, which are taught to be useful with Ou-Yang's process (paragraph [0014]) include a plurality of layers on the substrate surface, and that spin coating processes are known to be useful for the application of transparent spacer layers or transparent

Art Unit: 1792

cover layers on optical disks. It would have been obvious for one having ordinary skill in the art to have used the process of Ou-Yang for the application of a transparent spacer layer or transparent cover layer, in combination with a plurality of layers on the substrate, with the expectation of successful results since it is well known that spin coating techniques for coating on optical disks, such as Ou-Yang, are useful for the application of spacer or cover layers.

As to claim 3, Ou-Yang teaches use of IR radiation in paragraphs [0017] through [0019].

As to claim 4, Ou-Yang teaches that it is known to effect a thermal gradient in the manufacture of an optical disk by use of a heated or cooled chuck in its background section (paragraphs [0011] to [0013]).

As to claim 5, Ou-Yang teaches use of a directed flow of heated gas in paragraphs [0016] and [0018]-[0019].

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ou-Yang.

Ou-Yang lacks a teaching that the radial temperature profile has a shape substantially resembling the radial thickness profile resulting when δT_{ro} and δT_{ri} would be zero (i.e., when no heat is used). It is the Examiner's position that it would have been obvious to one having ordinary skill in the art to have used a radial temperature profile that has a shape similar to the

Art Unit: 1792

radial thickness profile when no heat is used because Ou-Yang teaches that a higher temperature at the outer periphery results in reduced thickness at the outer periphery (as compared to when no heat is used), therefore one would similarly conclude that the amount of heat needed at any point along the radius would be relative to the thickness at that point along the radius when no heat is used, such that a uniform thickness is formed.

As to claim 8, Ou-Yang lacks a teaching of first partially curing the liquid and then fully curing the liquid. However, it would have been obvious for one having ordinary skill in the art to have separated the curing process into two separate steps, instead of a single step, with the expectation of successful and equivalent results. In general, the separation of one step into two is not a patentable limitation unless new and unexpected results are achieved.

10. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ou-Yang as applied to claim 1 above, and further in view of JP 2001-307391 A.

As to claim 6, Ou-Yang lacks a teaching of using a mask in the outer peripheral zone of the substrate to prevent exposure of the liquid layer in this zone from UV radiation. JP '391 discloses that it is known to use a mask to shield UV light in the outer peripheral zone of a coated optical disk in order to prevent curing in this area to prevent formation of the lifting of resin at the outer peripheral portion of the disk (see abstract). As to claim 7, it would have further been obvious to have rotated the substrate at a high frequency to remove the unexposed portion of the liquid at the outer periphery of the substrate since this is the portion that is formed having unacceptable results.

Art Unit: 1792

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The remainder of the references cited in the corresponding PCT case PCT/IB03/05010, but not already listed on the submitted IDS of 12/22/05, are cited on the attached PTO-892 (JP 59-232339, JP 01-107867, US 5,580,607, US 6,042,712, and US cal2002/124797).

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kirsten C. Jolley whose telephone number is 571-272-1421. The examiner can normally be reached on Monday to Tuesday and Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kirsten C Jolley/
Primary Examiner, Art Unit 1792

Application/Control Number: 10/541,977

Page 8

Art Unit: 1792

kcj